



SEQUENCE LISTING

<110> Qin, Ning
Codd, Ellen

<120> cDNA encoding the Calcium Channel Alpha2Delta-4 Subunit

<130> calcium channel alpha2delta-4 subunit

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<160> 14

<170> PatentIn Ver. 2.1

<210> 1
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:
oligonucleotide

<400> 1
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27

<210> 2
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oligonucleotide

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<210> 3
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<210> 4

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<210> 5
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 <223> Description of Artificial Sequence:
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<210> 6
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 <223> Description of Artificial Sequence:
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<400> 6
 atgtcgttgt cgtggttgat gaccat 26

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 <213> Artificial Sequence

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 peptide

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Cys

<210> 8
 <211> 18

<212> PRT
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 <223> Description of Artificial Sequence: synthetic peptide

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Leu Cys

<210> 9
 <211> 3486
 <212> DNA
 <213> Homo sapiens

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 aacaga 3486

<210> 10
 <211> 1090
 <212> PRT
 <213> Homo sapiens

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Gly Ser Leu Leu Leu Gln Lys Lys Tyr Lys Asp Val Glu Ser Ser Leu
 35 40 45

Lys Ile Glu Glu Val Asp Gly Leu Glu Leu Val Arg Lys Phe Ser Glu
 50 55 60

Asp Met Glu Asn Met Leu Arg Arg Lys Val Glu Ala Val Gln Asn Leu
 65 70 75 80

Val Glu Ala Ala Glu Glu Ala Asp Leu Asn His Glu Phe Asn Glu Ser
 85 90 95

Leu Val Phe Asp Tyr Tyr Asn Ser Val Leu Ile Asn Glu Arg Asp Glu
 100 105 110

Lys Gly Asn Phe Val Glu Leu Gly Ala Glu Phe Leu Leu Glu Ser Asn
 115 120 125

Ala His Phe Ser Asn Leu Pro Val Asn Thr Ser Ile Ser Ser Val Gln
 130 135 140

Leu Pro Thr Asn Val Tyr Asn Lys Asp Pro Asp Ile Leu Asn Gly Val
 145 150 155 160
 Tyr Met Ser Glu Ala Leu Asn Ala Val Phe Val Glu Asn Phe Gln Arg
 165 170 175
 Asp Pro Thr Leu Thr Trp Gln Tyr Phe Gly Ser Ala Thr Gly Phe Phe
 180 185 190
 Arg Ile Tyr Pro Gly Ile Lys Trp Thr Pro Asp Glu Asn Gly Val Ile
 195 200 205
 Thr Phe Asp Cys Arg Asn Arg Gly Trp Tyr Ile Gln Ala Ala Thr Ser
 210 215 220
 Pro Lys Asp Ile Val Ile Leu Val Asp Val Ser Gly Ser Met Lys Gly
 225 230 235 240
 Leu Arg Met Thr Ile Ala Lys His Thr Ile Thr Thr Ile Leu Asp Thr
 245 250 255
 Leu Gly Glu Asn Asp Phe Val Asn Ile Ile Ala Tyr Asn Asp Tyr Val
 260 265 270
 His Tyr Ile Glu Pro Cys Phe Lys Gly Ile Leu Val Gln Ala Asp Arg
 275 280 285
 Asp Asn Arg Glu His Phe Lys Leu Leu Val Glu Glu Leu Met Val Lys
 290 295 300
 Gly Val Gly Val Val Asp Gln Ala Leu Arg Glu Ala Phe Gln Ile Leu
 305 310 315 320
 Lys Gln Phe Gln Glu Ala Lys Gln Gly Ser Leu Cys Asn Gln Ala Ile
 325 330 335
 Met Leu Ile Ser Asp Gly Ala Val Glu Asp Tyr Glu Pro Val Phe Glu
 340 345 350
 Lys Tyr Asn Trp Pro Asp Cys Lys Val Arg Val Phe Thr Tyr Leu Ile
 355 360 365
 Gly Arg Glu Val Ser Phe Ala Asp Arg Met Lys Trp Ile Ala Cys Asn
 370 375 380
 Asn Lys Gly Tyr Tyr Thr Gln Ile Ser Thr Leu Ala Asp Thr Gln Glu
 385 390 395 400
 Asn Val Met Glu Tyr Leu His Val Leu Ser Arg Pro Met Val Ile Asn
 405 410 415
 His Asp His Asp Ile Ile Trp Thr Glu Ala Tyr Met Asp Ser Lys Leu
 420 425 430
 Leu Ser Ser Gln Ala Gln Ser Leu Thr Leu Leu Thr Thr Val Ala Met
 435 440 445

Pro Val Phe Ser Lys Lys Asn Glu Thr Arg Ser His Gly Ile Leu Leu
 450 455 460
 Gly Val Val Gly Ser Asp Val Ala Leu Arg Glu Leu Met Lys Leu Ala
 465 470 475 480
 Pro Arg Tyr Lys Leu Gly Val His Gly Tyr Ala Phe Leu Asn Thr Asn
 485 490 495
 Asn Gly Tyr Ile Leu Ser His Pro Asp Leu Arg Pro Leu Tyr Arg Glu
 500 505 510
 Gly Lys Lys Leu Lys Pro Lys Pro Asn Tyr Asn Ser Val Asp Leu Ser
 515 520 525
 Glu Val Glu Trp Glu Asp Gln Ala Glu Ser Leu Arg Thr Ala Met Ile
 530 535 540
 Asn Arg Glu Thr Gly Thr Leu Ser Met Asp Val Lys Val Pro Met Asp
 545 550 555 560
 Lys Gly Lys Arg Val Leu Phe Leu Thr Asn Asp Tyr Phe Thr Asp
 565 570 575
 Ile Ser Asp Thr Pro Phe Ser Leu Gly Ala Val Leu Ser Arg Gly His
 580 585 590
 Gly Glu Tyr Ile Leu Leu Gly Asn Thr Ser Val Glu Glu Gly Leu His
 595 600 605
 Asp Leu Leu His Pro Asp Leu Ala Leu Ala Gly Asp Trp Ile Tyr Cys
 610 615 620
 Ile Thr Asp Ile Asp Pro Asp His Arg Lys Leu Ser Gln Leu Glu Ala
 625 630 635 640
 Met Ile Arg Phe Leu Thr Arg Lys Asp Pro Asp Leu Glu Cys Asp Glu
 645 650 655
 Glu Leu Val Arg Glu Val Leu Phe Asp Ala Val Val Thr Ala Pro Met
 660 665 670
 Glu Ala Tyr Trp Thr Ala Leu Ala Leu Asn Met Ser Glu Glu Ser Glu
 675 680 685
 His Val Val Asp Met Ala Phe Leu Gly Thr Arg Ala Gly Leu Leu Arg
 690 695 700
 Ser Ser Leu Phe Val Gly Ser Glu Lys Val Ser Asp Arg Lys Phe Leu
 705 710 715 720
 Thr Pro Glu Asp Glu Ala Ser Val Phe Thr Leu Asp Arg Phe Pro Leu
 725 730 735
 Trp Tyr Arg Gln Ala Ser Glu His Pro Ala Gly Ser Phe Val Phe Asn
 740 745 750

Leu Arg Trp Ala Glu Gly Pro Glu Ser Ala Gly Glu Pro Met Val Val
 755 760 765
 Thr Ala Ser Thr Ala Val Ala Val Thr Val Asp Lys Arg Thr Ala Ile
 770 775 780
 Ala Ala Ala Ala Gly Val Gln Met Lys Leu Glu Phe Leu Gln Arg Lys
 785 790 795 800
 Phe Trp Ala Ala Thr Arg Gln Cys Ser Thr Val Asp Gly Pro Tyr Thr
 805 810 815
 Gln Ser Cys Glu Asp Ser Asp Leu Asp Cys Phe Val Ile Asp Asn Asn
 820 825 830
 Gly Phe Ile Leu Ile Ser Lys Arg Ser Arg Glu Thr Gly Arg Phe Leu
 835 840 845
 Gly Glu Val Asp Gly Ala Val Leu Thr Gln Leu Leu Ser Met Gly Val
 850 855 860
 Phe Ser Gln Val Thr Met Tyr Asp Tyr Gln Ala Met Cys Lys Pro Ser
 865 870 875 880
 Ser His His His Ser Ala Ala Gln Pro Leu Val Ser Pro Ile Ser Ala
 885 890 895
 Phe Leu Thr Ala Thr Arg Trp Leu Leu Gln Glu Leu Val Leu Phe Leu
 900 905 910
 Leu Glu Trp Ser Val Trp Gly Ser Trp Tyr Asp Arg Gly Ala Glu Ala
 915 920 925
 Lys Ser Val Phe His His Ser His Lys His Lys Gln Asp Pro Leu
 930 935 940
 Gln Pro Cys Asp Thr Glu Tyr Pro Val Phe Val Tyr Gln Pro Ala Ile
 945 950 955 960
 Arg Glu Ala Asn Gly Ile Val Glu Cys Gly Pro Cys Gln Lys Val Phe
 965 970 975
 Val Val Gln Gln Ile Pro Asn Ser Asn Leu Leu Leu Val Thr Asp
 980 985 990
 Pro Thr Cys Asp Cys Ser Ile Phe Pro Pro Val Leu Gln Glu Ala Thr
 995 1000 1005
 Glu Val Lys Tyr Asn Ala Ser Val Lys Cys Asp Arg Met Arg Ser Gln
 1010 1015 1020
 Lys Leu Arg Arg Arg Pro Asp Ser Cys His Ala Phe His Pro Glu Val
 1025 1030 1035 1040
 Arg Val Glu Ala Asp Arg Gly Trp Ala Gly Phe Ser Ser Pro Asn Pro
 1045 1050 1055

Leu Cys Leu Gly Leu Cys Pro Cys Arg Gln Glu His Ile Gly Met Pro
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Met Asn Thr Pro Val Pro Val Leu Leu Gly Gly Asn Ile Arg Val Tyr
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Ala Leu
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<210> 11
<211> 188
<212> DNA
<213> Homo sapiens

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ctggaaac 188

<210> 12
<211> 58
<212> PRT
<213> Homo sapiens

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Thr Ser Ala Leu Leu Trp Leu Leu Leu Gly Thr Ser Leu Ser Pro
 35 40 45

Ala Trp Gly Gln Ala Lys Ile Pro Leu Glu
 50 55

<210> 13
<211> 105
<212> DNA
<213> Homo sapiens

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<210> 14

<211> 35

<212> PRT

<213> Homo sapiens

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Pro Pro Leu Leu Leu Pro Val Cys Ala Trp Gly Leu Leu Pro Gln
20 25 30

Leu Leu Arg

35